

Applied Computer Science

About the Major

With a degree in applied computer science, you'll be ready to design the future of medicine, business, engineering, and the arts. Applied computer science students investigate the ways fundamental theories can be translated into real-world applications. This major focuses on building foundational skills in computing, while also developing soft skills to be leaders in the IT world. While other Computer and Information science degrees focus on mathematics and theory, this major focuses on applying your learning in real-time to be ready for industry.

Marketable Skills and Abilities this Major Develops

- Ability to solve pressing business problems with the application of technology
 - Explain projects in non-technical language
 - Think critically about how their work interacts with other departments
 - Possess a strong emphasis on coding and programming skills
 - Ability to design and build computer-based systems and digital artifacts
 - Develop critical leadership skills such as professional communication, project management and business practices
 - Successfully collect, analyze, store and distribute information
 - Knowledge of programming languages and technologies
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Relevant Fields

- Computer Operations and Programming
- Consultancy
- Software consulting
- Bioinformatics and data management
- Graphics and video game development
- Defense software analysis
- System Analysis

Occupational Titles/Careers with

Bachelor's Degree

- Application Developer
- Software developer
- Project Manager
- IT Analyst
- Database Administrator
- Web Developer
- Systems Administrator

Sample Coursework

- Computing
 - Web Programming
 - Database Systems
 - Software Engineering
 - Operating Systems
 - Computer Organization
 - Discrete Mathematics
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Career Opportunities and Job Outlook

Employment in computer and information technology occupations is projected to grow 11 percent from 2019 to 2029, much faster than the average for all occupations. These occupations are projected to add about 531,200 new jobs. Demand for these workers will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security. (Bureau of Labor Statistics, 2020)

Salary Estimates

ZipRecruiter reported that in 2022, the average annual pay for applied computer science graduates in the United States was \$71,001 a year.

(This section is intended for informational purposes, not prediction of actual salary.)

Advanced Degrees

- Cybersecurity
- Artificial Intelligence
- Business Administration
- Research
- University Teaching
- Computer Engineering
- Database Administration

Professional Associations

- [Association for Computing Machinery](#)
- [Data Management International](#)
- [Institute of Electrical and Electronics Engineers](#)
- [The League of Professional System Administrators](#)
- [National Center for Women and Information Technology](#)
- [National Workforce Center for Emerging Technologies](#)